EECS C145B / BioE C165: Student background and interest questionnaire

Name (optional): _____

Major: _____

Undergrad/grad student: _____

1 Preparation

Have previous classes covered:

Linear algebra	☐ Yes	☐ No	☐ Uncertain
Basic linear systems	☐ Yes	☐ No	☐ Uncertain
Convolution of continuous functions	☐ Yes	☐ No	☐ Uncertain
Convolution of discrete functions	☐ Yes	☐ No	☐ Uncertain
Fourier series	☐ Yes	☐ No	☐ Uncertain
Fourier transform	☐ Yes	☐ No	☐ Uncertain
Discrete Fourier transform (DFT)	☐ Yes	☐ No	☐ Uncertain
Fast Fourier transform (FFT)	☐ Yes	☐ No	☐ Uncertain
Basic Matlab	☐ Yes	☐ No	☐ Uncertain
Signal processing in Matlab	☐ Yes	☐ No	☐ Uncertain
DFTs in Matlab	☐ Yes	☐ No	☐ Uncertain
Image processing in Matlab	☐ Yes	☐ No	☐ Uncertain

2 Interests

Please rate your interest in the following topics on a scale of 1 (least interest) to 10 (most interest)

Image enhancement: e.g. _____
-edge detection
-contrast adjustment
-image smoothing
-zooming
-pseudocolor

Image restoration: _____
-Recovering an image that has been "blurred" or contaminated in some way.
-Image filtering

Rigorous mathematical treatment of image processing methods _____

Practical, hands-on experience with image processing methods _____

Learning Matlab programming _____

Tomography (imaging inside objects) _____

Tomography:
Underlying physics _____
Rigorous mathematical treatment _____
Instrumentation _____
Medical applications _____
Applications in seismology _____
Applications in non-destructive testing _____
Applications in security (e.g. bomb detection) _____

Imaging dynamic physiological processes _____

Magnetic resonance imaging _____

Ultrasound imaging _____

Frontiers in imaging e.g. imaging gene expression _____

Biostatistics in imaging _____

Image compression _____

Automatic image segmentation and classification _____

Color systems _____

Human visual perception _____

Algorithms for printing images _____

Field trips to see imaging and image processing in action _____

Completing a course project for additional credit _____

3 Suggested topics

Are there any relevant topics that interest you not mentioned above?